

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (currently amended) A fire and explosion suppression system, comprising:
a source of pressurised liquid extinguishing agent,
a source of a pressurised ~~inert~~ gas,
mist producing means connected to receive a flow of the liquid extinguishing agent to produce a mist therefrom,
mixing means for mixing the already-produced mist into a flow of the pressurised ~~inert~~ gas to produce a discharge in a form of a two-phase mixture comprising a suspension of droplets of the mist in the pressurised ~~inert~~ gas, and
control means for controlling the ratio of the mass flow rate of the liquid extinguishing agent to the mass flow rate of the pressurised gas towards such a value as to tend to produce a desired droplet size distribution in and for substantially the duration of the discharge.
2. (previously presented) A system according to claim 1, in which the control means controls the value of the ratio towards a constant value.
3. (currently amended) A system according to claim 1, in which the control means includes means for pressurising the liquid extinguishing agent in dependence on the pressure of the ~~inert~~-gas.
4. (currently amended) A system according to claim 3, in which the pressurised ~~inert~~ gas is pressurised by being stored under pressure which thus reduces during the flow thereof and reduces the mass flow rate of the ~~inert~~ gas, and in which the control means includes means for applying the pressure of the stored ~~inert~~ gas to pressurise the liquid extinguishing agent whereby the reducing applied pressure correspondingly reduces the mass flow rate of the liquid extinguishing agent.

5. (previously presented) A system according to claim 1, in which the control means includes controllable valve means for controlling the mass flow rate of the liquid extinguishing agent during the discharge.

6. (previously presented) A system according to claim 5, in which the valve means comprises a controllable metering valve means and the control means includes means for adjusting the metering valve means in dependence on the mass flow rate of the gas.

7. (currently amended) A system according to claim 5, in which the valve means comprises a controllable metering valve means and the control means includes means for adjusting the metering valve means in dependence on the pressure of the stored inert gas.

8. (previously presented) A system according to claim 5, in which the controllable valve means comprises a plurality of parallel flow paths for feeding the liquid extinguishing agent to the mist producing means and having respective flow orifices of different cross-sectional area, in combination with selection means for selecting any one or more of the flow paths.

9. (previously presented) A system according to claim 1, in which the control means includes means for controlling the pressure of the pressurised liquid extinguishing agent.

10. (previously presented) A system according to claim 9, in which the control means includes a pump for pressurising the source of the liquid extinguishing agent.

11. (currently amended) A system according to claim 10, in which the control means includes means responsive to the mass flow rate of the ~~inert~~ gas for adjusting the pump to vary the pressure of the source of the liquid extinguishing agent.

12. (currently amended) A system according to claim 1, including means for initiating the flow of the liquid extinguishing agent before initiating the flow of the ~~inert~~ gas.

13. (previously presented) A system according to claim 1, in which the liquid extinguishing agent is water.

14. (previously presented) A system according to claim 1, in which the liquid extinguishing agent is a chemical substance.

15. (currently amended) A fire and explosion suppression method, in which a mist of a liquid extinguishing agent is produced from a flow of the liquid extinguishing agent and is mixed into a flow of pressurised ~~inert~~ gas to produce a discharge in the form of a two-phase mixture comprising a suspension of droplets of the mist in the pressurised ~~inert~~ gas, the method including the step of controlling the ratio of the mass flow rate of the liquid extinguishing agent to the mass flow rate of the pressurised gas towards such a value as to tend to produce a desired droplet size distribution in and for substantially the duration of the discharge.

16. (original) A method according to claim 15, in which the value of the ratio is controlled towards a constant value.

17. (currently amended) A method according to claim 15, in which the controlling step includes the step of pressurising the liquid extinguishing agent in dependence on the pressure of the ~~inert~~ gas.

18. (currently amended) A method according to claim 17, in which the pressurised ~~inert~~ gas is pressurised by being stored under pressure which thus reduces during the flow thereof and reduces the mass flow rate of the ~~inert~~ gas, and in which the controlling step includes the step of applying the pressure of the stored ~~inert~~ gas to pressurise the liquid extinguishing agent whereby the reducing applied pressure correspondingly reduces the mass flow rate of the liquid extinguishing agent.

19. (previously presented) A method according to claim 15, in which the controlling step includes the step of controlling the mass flow rate of the liquid extinguishing agent during the discharge.

20. (original) A method according to claim 19, in which the mass flow rate of the liquid extinguishing agent is adjusted in dependence on the mass flow rate of the gas.

21. (currently amended) A system according to claim 19, in which the mass flow rate of the liquid extinguishing agent is adjusted in dependence on the pressure of the stored ~~inert~~ gas.

22. (previously presented) A method according to claim 15, in which the controlling step includes the step of controlling the pressure of the pressurised liquid extinguishing agent.

23. (currently amended) A method according to claim 22, in which the controlling step includes the step of varying the pressure of the liquid extinguishing agent in response to the mass flow rate of the ~~inert~~ gas.

24. (currently amended) A method according to claim 15, including the step of initiating the flow of the liquid extinguishing agent before initiating the flow of the ~~inert~~ gas.

25. (previously presented) A method according to claim 15, in which the liquid extinguishing agent is water.

26. (previously presented) A method according to claim 15, in which the liquid extinguishing agent is a chemical substance.

27. (new) A system according to claim 1, wherein the control means is pre-programmed with values.

28. (new) A system according to claim 27, wherein the values are determined via a flow prediction model.

29. (new) A system according to claim 27, wherein the values are determined empirically.

30. (new) A system according to claim 1, wherein the pressurised gas is pressurised inert gas.

31. (new) A system according to claim 15, wherein the pressurised gas is pressurised inert gas.